

REMARKS/ARGUMENTS

The Office Action mailed September 14, 2006 has been received and its content carefully considered. Reconsideration and withdrawal of the outstanding rejections are respectfully requested in view of the foregoing amendments and the following remarks.

Without conceding the propriety of the rejections under 35 U.S.C. § 102(b) and § 103(a), each of the independent claims 1, 27 and 31 and dependent claim 12 have been amended. The amendments to claims 1, 27, and 31 is similar to the subject matter of the prior claim 12. The amendment to claim 12 further defines the inflatable air bladder. Specific support for the amendments is to be found, at least, in paragraph 41 of the Specification.

REJECTION UNDER 35 U.S.C. §102 (U.S. Patent No. 2,770,823 to Jacob S. Kamborian)

Claim 31 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,770,823 to Jacob S. Kamborian (Hereinafter referred to as, "the Kamborian document"). The Applicants respectfully submit that the amendment made to claim 31 obviates this rejection and thus, respectfully request reconsideration and withdrawal of the rejection to claim 31.

The Kamborian document is directed to a device that provides support for a shoe sole during the shoe making process. *See Column 2, lines 41-44.* This device includes a rectangular metal box with an internal electromagnetic core and a fluid-like magnetic support bed. With the electromagnetic core de-energized, a shoe mold may be pressed into the support bed to form an impression. The bed is then solidified by energizing the electromagnet so that, upon removal of the shoe mold, the impression may be retained for use in making shoes. That is, the shoe mold is urged or pressed into the bed to form the impression. While this device is perfectly adequate to generate an impression for use in the shoe making industry, it is inappropriate for generating the

relatively high precision items used in the aerospace industry. In contrast, claim 31 recites, *inter alia*, an air bladder disposed within the container to receive pressurized air, wherein the air bladder urges the support media towards the mold plug to enhance packing of the support media against the mold plug. As such, the air bladder provides an actuator to drive the support media into intimate contact with the details of the mold plug. In this manner, a relatively high precision mold for aerospace items may be generated. The Kamborian document fails to disclose, at least, an air bladder disposed within the container to receive pressurized air, wherein the air bladder urges the support media towards the mold plug to enhance packing of the support media against the mold plug. As such, the molding device of the present invention is patentably distinct from the pad box device of the Kamborian document.

In view of the foregoing, withdrawal of the 35 U.S.C. § 102(b) rejection to claim 31 as being anticipated by the Kamborian document is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103(a) (U.S. Patent No. 2,513,785 to Theodore C. Browne together with U.S. Patent No. 4,931,242 to Shoji Uchimura et al.)

Claims 1, 5, 10, 11, 13, 15-17 and 27 stand rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 2,513,785 to Theodore C. Browne (Hereinafter referred to as, “the Browne document”) taken together with U.S. Patent No. 4,931,242 to Shoji Uchimura et al. (Hereinafter referred to as, “the Uchimura document”). The Applicants respectfully submit that the amendment made to claims 1 and 27 obviates this rejection. Claims 5, 10, 11, 13, and 15-17 depend from independent claim 1. Therefore, for at least the following reasons, the Applicants respectfully request that the rejection to claims 1, 5, 10, 11, 13, 15-17 and 27 be removed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge already available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. See MPEP § 2143.

A *prima facie* case of obviousness has not been made in that the Browne document and the Uchimura document, alone and in combination, fail to teach or suggest the invention as recited in claims 1, 5, 10, 11, 13, 15-17 and 27 of the present application.

The Browne document is directed towards a casting device for reproducing type set. To operate, an elastic membrane and casting medium is placed over the type set and a vacuum is drawn from type set to adhere the membrane upon the type set. The casting medium, being above the membrane, is allowed to fall by the force of gravity upon the membrane. A vacuum is then drawn from the casting bed side to fix the casting medium. The Browne document further discloses that, rather than a vacuum from the type set side, pressurized air from the casting bed side may be utilized to adhere the membrane to the type set. In both cases, it is the membrane that is urged to adhere to the type set by a pressure differential and the casting medium is allowed to settle upon the membrane. That is, the membrane is actuated and the casting medium is simply immobilized in place. In contrast, claim 1 recites, *inter alia*, an inflatable air bladder disposed within said container to urge the support media towards the mold plug. As such, the air bladder provides an actuator to drive the support media into intimate contact with the details of the mold plug. This actuation of the support media compacts the support media against the membrane and also compacts the support media upon itself to generate a supportive surface and

substrate that is essentially free of voids. Similarly, claim 27 recites, *inter alia*, means for inflating an air bladder disposed within the tool apparatus to urge the support media towards the mold plug and enhance the packing of the support media against the mold plug. The Browne document fails to disclose, at least, an inflatable air bladder disposed within said container to urge the support media towards the mold plug and further fails to disclose means for inflating the air bladder to urge the support media towards the mold plug and enhance the packing of the support media against the mold plug. As such, the molding device of the present invention is patentably distinct from the casting device of the Browne document.

The Uchimura document fails to make up for the deficiencies of the Browne document. The Uchimura document is directed to a casting device that includes a vibrator to pack the support medium. Such vibration is well know to increase the fluid-like properties of support media. However, the vibration does not *drive* the support media towards the mold plug. Instead, vibration essentially acts to facilitate or speed the settling process. As such, the molding device of the present invention is patentably distinct from the casting devices of the Browne and Uchimura documents.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejection to claims 1 and 27 as being anticipated by the Browne document taken together with the Uchimura document is respectfully requested. Claims 5, 10, 11, 13, and 15-17 depend from independent claim 1. Therefore, the Applicants respectfully request that the rejection to claims 1, 5, 10, 11, 13, 15-17 and 27 be removed.

REJECTIONS UNDER 35 U.S.C. § 103(a) (U.S. Patent No. 2,488,922 to Warren J. Mead
together with the Uchimura document)

Claims 1, 5, 6 and 10 stand rejected under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 2,488,922 to Warren J. Mead (Hereinafter referred to as, "the Mead document") taken together with the Uchimura document. The Applicants respectfully submit that the amendment made to claim 1 obviates this rejection. Claims 5, 6, and 10 depend from independent claim 1. Therefore, for at least the following reasons, the Applicants respectfully request that the rejection to claims 1, 5, 6 and 10 be removed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge already available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. See MPEP § 2143.

A *prima facie* case of obviousness has not been made in that the Mead document and the Uchimura document, alone and in combination, fail to teach or suggest the invention as recited in claims 1, 5, 6 and 10 of the present application.

The Mead document is directed towards a casting device for reproducing the stump portion of an amputees appendage. In operation, the device is similar to the devices disclosed in the Browne and Uchimura documents in that the support media is essentially fluid or impressionable when sufficient air is present and is solidified by the removal of air. As in the Browne and Uchimura documents, the Mead document discloses actuating the membrane by adjusting the air pressure. That is, the membrane is actuated and the casting medium is simply

immobilized in place. In contrast, claim 1 recites, *inter alia*, an inflatable air bladder disposed within said container to urge the support media towards the mold plug. As described herein, the air bladder provides an actuator to drive the support media into intimate contact with the details of the mold plug. This actuation of the support media compacts the support media against the membrane and also compacts the support media upon itself to generate a supportive surface and substrate that is essentially free of voids. The Mead document fails to disclose, at least, an inflatable air bladder disposed within said container to urge the support media towards the mold. As such, the molding device of the present invention is patentably distinct from the casting device of the Mead document.

The Uchimura document fails to make up for the deficiencies of the Mead document. As described herein, the Uchimura document is directed to a casting device that includes a vibrator to pack the support medium. However, the vibration does not *drive* the support media towards the mold plug. Instead, vibration essentially acts to facilitate or speed the settling process. As such, the molding device of the present invention is patentably distinct from the casting devices of the Mead and Uchimura documents.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejection to claim 1 as being anticipated by the Mead document taken together with the Uchimura document is respectfully requested. Claims 5, 6 and 10 depend from independent claim 1. Therefore, the Applicants respectfully request that the rejection to claims 1, 5, 6 and 10 be removed.

REJECTIONS UNDER 35 U.S.C. § 103(a) (the Browne or Mead documents with U.S. Patent No. 5,262,121 to Kenneth T. Goodno)

Claims 2-4 and 7 stand rejected under 35 U.S.C. § 103(a) as being anticipated by the Browne or Mead documents with U.S. Patent No. 5,262,121 to Kenneth T. Goodno. Initially, the Applicants note that claims 2-4 and 7 depends from independent claim 1 and that claim 1 is believed to be patentable for at least the reasons stated hereinabove. Applicants further note that any claim that depends from an allowable claim is also allowable. Therefore, Applicants respectfully request that the rejection to claims 2-4 and 7 be removed.

REJECTIONS UNDER 35 U.S.C. § 103(a) (the Browne and Uchimura documents and further in view of Civil Engineer's Reference Book, 4th edition, 1989, section 37.5.5 to Leslie S. Blake)

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being anticipated by the Browne and Uchimura documents and further in view of Civil Engineer's Reference Book, 4th edition, 1989, section 37.5.5 to Leslie S. Blake. Initially, the Applicants note that claims 8 and 9 depends from independent claim 1 and that claim 1 is believed to be patentable for at least the reasons stated hereinabove. Applicants further note that any claim that depends from an allowable claim is also allowable. Therefore, Applicants respectfully request that the rejection to claims 8 and 9 be removed.

REJECTIONS UNDER 35 U.S.C. § 103(a) (the Browne or Mead documents together with the Uchimura document and further in view of U.S. Patent No. 4,160,003 to Mikio Kozuka et al.)

Claim 12 stands rejected under 35 U.S.C. § 103(a) as being anticipated by the Browne or Mead documents together with the Uchimura document and further in view of U.S. Patent No.

4,160,003 to Mikio Kozuka et al. (Hereinafter referred to as, "the Kozuka document"). The Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge already available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. See MPEP § 2143.

A *prima facie* case of obviousness has not been made in that no combination of the Browne, Mead, Uchimura, or Kozuka documents teach or suggest the invention as recited in claim 12 of the present application.

As described hereinabove, no combination of the Browne, Mead, or Uchimura documents teach or suggest the invention as recited in claim 1 of the present application. Claim 12 depends from independent claim 1. Thus, claim 12 is believed to be allowable for at least the reason that claim 1 is believed to be allowable. The Kozuka document fails to make up for the deficiencies of the Browne, Mead, and Uchimura documents. In this regard, the Kozuka document is directed towards a casting device that includes a flexible casting face and a flexible backing. In operation, the device is assembled by placing a mold plug facing upwards, placing the flexible casting face upon the mold plug, and sealing an open frame to the flexible casting face. The frame is filled with casting media and the flexible backing is sealed to the frame. The casting media is solidified by drawing a vacuum from the sealed frame and the flexible backing is drawn inwards to make up any volume not filled with the support media. In this manner, similar to the devices disclosed in the Browne, Mead, and Uchimura documents, the flexible backing of the

Kozuka document simply immobilized the support media in place. Thus, the molding device of the present invention is patentably distinct from any combination of the casting devices of the Browne, Mead, Uchimura, and Kozuka documents.

In view of the foregoing, withdrawal of the 35 U.S.C. § 103(a) rejection to claim 12 as being anticipated by the Browne or Mead documents together with the Uchimura document and further in view of the Kozuka document is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103(a) (either the Browne or Uchimura documents and further in view of U.S. Patent No. 3,883,287 to Grawey et al.)

Claims 14 and 18 stand rejected under 35 U.S.C. § 103(a) as being anticipated by either the Browne or Uchimura documents and further in view of U.S. Patent No. 3,883,287 to Grawey et al. Initially, the Applicants note that claims 14 and 18 depends from independent claim 1 and that claim 1 is believed to be patentable for at least the reasons stated hereinabove. Applicants further note that any claim that depends from an allowable claim is also allowable. Therefore, Applicants respectfully request that the rejection to claims 14 and 18 be removed.

REJECTIONS UNDER 35 U.S.C. § 103(a) (either the Browne or Uchimura documents and further in view of U.S. Patent No. 4,599,062 to Konishi)

Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being anticipated by either the Browne or Uchimura documents and further in view of U.S. Patent No. 4,599,062 to Konishi et al. Initially, the Applicants note that claims 19 and 20 depends from independent claim 1 and that claim 1 is believed to be patentable for at least the reasons stated hereinabove. Applicants

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further note that any claim that depends from an allowable claim is also allowable. Therefore, Applicants respectfully request that the rejection to claims 19 and 20 be removed.

In view of the foregoing, reconsideration and allowance of this application is believed in order and such action is earnestly solicited. Should the Examiner believe that a telephone conference would facilitate examination of the application, the Examiner is respectfully invited to telephone the undersigned at (202) 861-1629.

In the event this paper is not timely filed, the Applicants petition for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036.

Respectfully submitted,

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